

TRICHOTICHNUS MORAWITZ, A GENUS NEW TO AUSTRALIA (COLEOPTERA: CARABIDAE: HARPALINAE)

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Abstract

The carabid genus *Trichotichnus* Morawitz is recorded from Australia for the first time based on three female specimens taken on the Atherton Tableland and near the Mulgrave River, northern Queensland.

In the carabid material collected by the author from December 1981 to January 1982 in northern Queensland three specimens of a species were found, which were identified with some uncertainty as *Trichotichnus* (*Carbanus*) straneoi (Louwerens 1962). All specimens are females with the collecting data: 12 km northeast of Kairi, Atherton Tableland, northern Queensland, 30.xii.1981 (1); 30 km south of Little Mulgrave, Mulgrave River, North Queensland, 12.i.1982 (2). One specimen will be given to the Australian National Insect Collection (C.S.I.R.O.), Canberra.

Trichotichnus straneoi was described from the island of Amboina in the Moluccas (Louwerens 1962) and is also distributed in New Guinea, New Britain, and New Ireland (Darlington 1968). The Queensland specimens agree only partly with the original description of Louwerens. These differences are the most striking ones:—Size after Louwerens 5 mm, but measurements of the Queensland specimens are: 6.0 mm, 6.05 mm, and 6.35 mm. Louwerens states the ratio width/length of pronotum as 1.75, in the Queensland specimens the same ratio is between 1.53 and 1.58. The base of the pronotum is in the Queensland specimens much less densely punctate, especially in the middle of base, than in the type. The short description of the same species in New Guinea by Darlington (1968) agrees much better with the specimens from Queensland, even though these are above average length. Louwerens placed the species in the genus *Carbanus* Andrewes. Because of the large eyes, whose lower border is very near the base of the mandibles, *Carbanus* was originally placed into the Acupalpina. But the presence of plurisetose labial palpes already precludes such an arrangement. Body shape, dense puncturation of the base of the pronotum, and the fine pubescence on the prosternum and the base of abdomen characterize the species sufficiently as a member of the genus *Trichotichnus*. Perhaps *Carbanus* should be given the rank of a subgenus of *Trichotichnus*.

With regard to the type series the Australian specimens are especially distinguished by their large size, apart from the differences mentioned above. But at this time there is no reason for classifying them as a separate subspecies, since we must wait for the discovery of the males of the species in Australia.

Regarding the ecology of *Trichotichnus straneoi* in New Guinea Darlington (1968) only indicates that it is found mainly at light, but he made no other statements. All Australian specimens came from the Atherton Tableland and its eastern escarpment, at the base of Cape York Peninsula. Both collecting localities are within about 30 km of each other and are situated in rain forest areas in the vicinity of small rivers. The specimen from Kairi and one of the specimens from the Mulgrave River flew to light in the late evening. The second Mulgrave River specimen was collected in forest floor litter between piles of dead leaves in undisturbed rain forest. This agrees very well with Darlington's (1968) statements on the habits of *Trichotichnus* species of New Guinea. Apart from these observations virtually nothing is known about the phenology, life history and feeding habits of this and other *Trichotichnus* species in the Australian/New Guinean region.

Contrary to Darlington's (1968, 1971) statements *Trichotichnus straneoi* represents another genus of the Oriental-Palearctic fauna in northern Australia. This species was found in rain forest areas at the base of Cape York Peninsula, as is true for some other oriental or palearctic/oriental genera, which are poor in species or monospecific in Australia. In most cases, where the same species is involved in Australia and New Guinea or south-eastern Asia, respectively, these are winged species like *Trichotichnus straneoi* with large distribution areas. It is to be expected, that in Australia *T. straneoi* could also be discovered in the rain forest areas of central Cape York Peninsula, i.e. the McIllwraight Range and at Iron Range. Thus, it could be another example of an element of the tropical oriental fauna using the rain forest areas of Cape York Peninsula as stepping stones for invading northern Australia.

References

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